

## COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled BIOLOGICAL APPLICATIONS OF QUANTUM DOTS, the specification of which:

- ☐ is attached hereto.  
☒ was filed on September 24, 1998 as Application Serial No. 09/160,454 and was amended on \_\_\_\_\_  
☐ was described and claimed in PCT International Application No. \_\_\_\_\_ filed on \_\_\_\_\_ and as amended under PCT Article 19 on \_\_\_\_\_.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim the benefit under Title 35, United States Code, §119(e)(1) of any United States provisional application(s) listed below:

<u>U.S. Serial No.</u>	<u>Filing Date</u>	<u>Status</u>
60/100,947	September 18, 1998	Pending

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose all information I know to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

<u>U.S. Serial No.</u>	<u>Filing Date</u>	<u>Status</u>
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I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

<u>Country</u>	<u>Application No.</u>	<u>Filing Date</u>	<u>Priority Claimed</u>
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I hereby appoint the following attorneys and/or agents to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Eric L. Prah, Reg. No. 32,590  
Y. Rocky Tsao, Reg. No. 34,053  
John F. Hayden, Reg. No. 37,640

Frank R. Occhiuti, Reg. No. 35,306  
Harold H. Fox, Reg. No. 41,498

Address all telephone calls to HAROLD H. FOX at telephone number (202) 783-5070.

# Combined Declaration and Power of Attorney

Page 2 of 2 Pages

Address all correspondence to ERIC L. PRAHL at:

FISH & RICHARDSON P.C.  
225 Franklin Street  
Boston, MA 02110-2804

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full Name of Inventor: MOUNGI G. DAWENDI

Inventor's Signature: *Mongi Dawendi*

Date: 3/30/01

Residence Address: Boston, Massachusetts

Citizenship: United States of America.

Post Office Address: 263 Commonwealth Ave. #5 Boston, MA 02116

Full Name of Inventor: VIKRAM C. SUNDAR

Inventor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Residence Address: Stonham, Massachusetts

Citizenship: India

Post Office Address: 555 Main Street, Stonham, Massachusetts 02180

Full Name of Inventor: FREDERIC V. MIKULEC

Inventor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Residence Address: La Jolla, California

Citizenship: United States of America

Post Office Address: 8280 Caminito Sonoma, La Jolla, California 92037

**Combined Declaration and Power of Attorney**  
Page 2 of 2 Pages

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Full Name of Inventor: MOUNGI G. BAWENDI

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence Address: Boston, Massachusetts  
Citizenship: United States of America.  
Post Office Address: 263 Commonwealth Ave. #5 Boston, MA 02116

Full Name of Inventor: VIKRAM C. SUNDAR

Inventor's Signature:  \_\_\_\_\_ Date: 04/02/01  
Residence Address: Stoneham, Massachusetts  
Citizenship: India  
Post Office Address: 555 Main Street, Stoneham, Massachusetts 02180

Full Name of Inventor: FREDERIC V. MIKULEC

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence Address: La Jolla, California  
Citizenship: United States of America  
Post Office Address: 8280 Caminito Sonoma, La Jolla, California 92037

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Patent and Trademark Office

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JANUARY 19, 2000

PTAS

CHOATE, HALL & STEWART  
ELIZABETH E. NUGENT  
53 STATE STREET, EXCHANGE PLACE  
BOSTON, MA 02109\*



\*101183285A\*

11017 U.S. PTO  
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REEL/FRAME: 010328/0390  
NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

BAWENDI, MOUNGI G.

DOC DATE: 01/26/1999

ASSIGNOR:

MIKULEC, FREDERICK V.

DOC DATE: 01/26/1999

ASSIGNOR:

SUNDAR, VIKRAM C.

DOC DATE: 01/26/1999

ASSIGNEE:

MASSACHUSETTS INSTITUTE OF  
TECHNOLOGY  
77 MASSACHUSETTS AVENUE  
CAMBRIDGE, MASSACHUSETTS 02142

SERIAL NUMBER: 09160454  
PATENT NUMBER:

FILING DATE: 09/24/1998  
ISSUE DATE:

TARA WASHINGTON, \*EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

010328/0390 PAGE 2

MRD 10-25-99

10-27-1999

FORM PTO-161  
Expires 06/30/99  
OMB 0651-0027

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☐

Mark if additional names of conveying parties attached

Name (line 1)

Moungi G. Bawendi

Execution Date  
Month Day Year

1/26/99

Name (line 2)

Frederick V. Mikulec

## Second Party

Name (line 1)

Vikram C. Sundar

Execution Date  
Month Day Year

1/26/99

Name (line 2)

## Receiving Party

☐

Mark if additional names of receiving parties attached

Name (line 1)

Massachusetts Institute of Technology

☐If document to be recorded  
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domiciled in the United  
States, an appointment  
of a domestic  
representative is attached.  
(Designation must be a  
separate document from  
Assignment.)

Name (line 2)

Address (line 1)

77 Massachusetts Avenue

Address (line 2)

Address (line 3)

Cambridge

City

MA

State/Country

U.S.A.

02142

Zip Code

## Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

Lori Pressman

Address (line 1)

Massachusetts Institute of Technology

Address (line 2)

77 Massachusetts Avenue

Address (line 3)

Cambridge, MA 02142

Address (line 4)

10/26/1999 NTHA11 00000266 09160454

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Mail documents to be recorded with required cover sheet(s) information to:  
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

**Correspondent Name and Address**

Area Code and Telephone Number **(617) 248-5000**

Name **Elizabeth E. Nugent**

Address (line 1) **Choate, Hall & Stewart**

Address (line 2) **53 State Street, Exchange Place**

Address (line 3) **Boston, MA 02109**

Address (line 4)

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Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

**09/160,454**

Patent Number(s)

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

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Enter PCT application number

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*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.*

*Elizabeth E. Nugent*  
Name of Person Signing

*Elizabeth E. Nugent, Reg. 43,859*  
Signature

*10/19/99*  
Date

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner For Patents, Washington, D.C. 20231 on *10-22-99*

*Sarah B. Khourey*



## ASSIGNMENT

**WHEREAS**, We, **Moungi G. Bawendi** of Boston, Massachusetts; **Frederick V. Mikulec** of Somerville, Massachusetts; and **Vikram C. Sundar** of Somerville, Massachusetts having invented a certain improvement in a **BIOLOGICAL APPLICATIONS OF QUANTUM DOTS** for which We have made application for a United States Patent, said application filed on September 24, 1998, and having a United States Serial No. 09/160,454;

**WHEREAS**, Massachusetts Institute of Technology a non-profit educational institution having offices at 77 Massachusetts Avenue, Cambridge, MA 02142 and its successors and assigns (collectively hereinafter called "the Assignee"), is desirous of acquiring my entire right, title and interest in and to the invention, and in and to the said application and any Letters Patent that may issue thereon;

**NOW THEREFORE**, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledge, I do hereby sell assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives the full and exclusive right, title and interest in and to said invention and in and to said Applications and all patents which may granted therefore, and all divisions, reissues, substitutions, continuations, continuations-in-part and extensions thereof; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as my interest is concerned, to the said ASSIGNEE of my entire right, title and interest.

I also hereby sell and assign to said ASSIGNEE, its successors, assigns and legal representatives the full and exclusive rights, title and interest to the invention disclosed in said Applications throughout the world, including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world, including all rights of priority, all rights to publish cautionary notices reserving ownership of said invention, and all rights to register said invention in appropriate registries; and I further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such rights, title and interest in ASSIGNEE, its successors, assigns and legal representatives.

I hereby further agree that I will communicate to said ASSIGNEE, or to its successors, assigns and legal representative, any facts known to me respecting any improvements; and, at the expense of said ASSIGNEE, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and substitute applications, make all lawful oaths, and generally do everything possible to vest title in said ASSIGNEE and to aid said ASSIGNEE, its successors, assigns and legal representatives to obtain and enforce proper protection for said invention in all countries.

IN WITNESS WHEREOF, I hereto set my hand and seal at Cambridge  
MA this 26 day of Jan., 1998.

Moungi G. Bawendi  
Moungi G. Bawendi

STATE OF Mass.

SS.

COUNTY OF Middlesex

Before me this 26th day of Jan., 1998, personally appeared **Moungi G. Bawendi** known to me to be the person whose name of subscribed to the foregoing Assignment and acknowledged that he executed the same as his free act and deed for the purposes therein contained.



Maria Nargi  
NOTARY PUBLIC

My Commission Expires: 11/10/2000

IN WITNESS WHEREOF, I hereto set my hand and seal at CAMBRIDGE  
MASSACHUSETTS this 26 day of JAN, 1998.

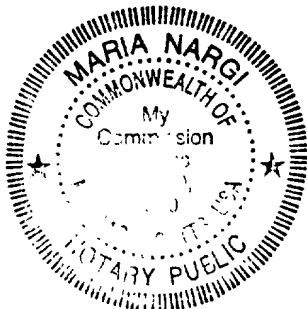
Frederick V. Mikulec  
Frederick V. Mikulec

STATE OF Mass

SS.

COUNTY OF Middlesex

Before me this 26th day of Jan, 1998, personally appeared **Frederick V. Mikulec** known to me to be the person whose name of subscribed to the foregoing Assignment and acknowledged that he executed the same as his free act and deed for the purposes therein contained.



Maria Nargi  
NOTARY PUBLIC EXP 11/10/2000

[Notary's Seal Here]

My Commission Expires

IN WITNESS WHEREOF, I hereunto set my hand and seal at Camb. ige  
Mass. this 26 day of January, 1999.

Vikram C. Sundar  
Vikram C. Sundar

STATE OF MASS.  
SS.

COUNTY OF Middlesex

Before me this 26th day of Jan, 1999, personally appeared  
**Vikram C. Sundar** known to me to be the person whose name of subscribed to the foregoing  
Assignment and acknowledged that he executed the same as his free act and deed for the purposes  
therein contained.

[Notary's Seal Here]

DS1 45238



NOTARY PUBLIC

My Commission Expires: 11/10/2000